1/17

SEQUENCE LISTING

```
<110> Perreault, Jean-Pierre
            Ananvoranich, Sirinart
            Lafontaine, Daniel
     <120> Nucleic Acid Enzyme for RNA Cleavage
     <130> 258/235
10
     <140> US 09/699,667
     <141> 2001-10-30
     <150> CA 2,230,203
     <151> 1998-04-29
     <150> PCT/CA1999/000391
     <151> 1999-04-29
20
     <160> 66
     <170> PatentIn version 3.3
     <210> 1
      <211> 11
      <212> DNA
      <213> Artificial Sequence
30
      <220>
      <223> Description of Artificial Sequence: nucleotide
            sequence comprised of ribonucleotides or a
            combination of ribonucleotides and
            deoxyribonucleotides
      <220>
      <221> misc feature
      <222> (1) ... (11)
      <223> n is a or g or c or t/u, unknown, or other
 40
      <400> 1
                                                                                11
      nnrhgnnhnn n
      <210> 2
      <211> 11
       <212> DNA
       <213> Artificial Sequence
 50
       <220>
       <223> Description of Artificial Sequence: nucleotide
             sequence comprised of ribonucleotides or a
             combination of ribonucleotides and
             deoxyribonucleotides
       <220>
       <221> misc feature
       <222> (6) ... (11)
       <223> n is a or g or c or t/u, unknown, or other
  60
```

```
<400> 2
                                                                               11
     rrrhgnnhnn n
     <210> 3
     <211> 11
     <212> DNA
     <213> Artificial Sequence
10
     <220>
     <223> Description of Artificial Sequence: nucleotide
           sequence comprised of ribonucleotides or a
           combination of ribonucleotides and
           deoxyribonucleotides
     <220>
     <221> misc_feature
     <222> (6) ... (11)
     <223> n is a or g or c or t/u, unknown, or other
20
     <400> 3
                                                                                11
     gggcgnnunn n
      <210> 4
      <211> 11
      <212> DNA
      <213> Artificial Sequence
30
      <220>
      <223> Description of Artificial Sequence: nucleotide
            sequence comprised of ribonucleotides or a
            combination of ribonucleotides and
            deoxyribonucleotides
      <220>
      <221> misc_feature
      <222> (6) ... (11)
      <223> n is a or g or c or t/u, unknown, or other
 40
      <400> 4
                                                                                 11
      gggcgnnhnn n
       <210> 5
       <211> 11
       <212> DNA
       <213> Artificial Sequence
 50
       <220>
       <223> Description of Artificial Sequence: nucleotide
             sequence comprised of ribonucleotides or a
             combination of ribonucleotides and
             deoxyribonucleotides
       <220>
       <221> misc feature
       <222> (6) ... (11)
       <223> n is a or g or c or t/u, unknown, or other
  60
```

```
<400> 5
                                                                               11
     gggugnnunn n
     <210> 6
     <211> 12
     <212> DNA
     <213> Artificial Sequence
10
     <220>
     <223> Description of Artificial Sequence: nucleotide
           sequence comprised of ribonucleotides or a
           combination of ribonucleotides and
           deoxyribonucleotides
     <220>
     <221> misc_feature
     <222> (6) ... (12)
     <223> n is a or g or c or t/u, unknown, or other
20
      <400> 6
                                                                                12
     gggugnnenn nn
      <210> 7
      <211> 11
      <212> DNA
      <213> Artificial Sequence
 30
      <220>
      <223> Description of Artificial Sequence: nucleotide
            sequence comprised of ribonucleotides or a
            combination of ribonucleotides and
            deoxyribonucleotides
      <220>
      <221> misc_feature
      <222> (6) ... (11)
      <223> n is a or g or c or t/u, unknown, or other
 40
      <400> 7
                                                                                 11
      aaacgnnunn n
       <210> 8
       <211> 11
       <212> DNA
       <213> Artificial Sequence
 50
       <220>
       <223> Description of Artificial Sequence: nucleotide
             sequence comprised of ribonucleotides or a
             combination of ribonucleotides and
             deoxyribonucleotides
       <220>
       <221> misc feature
       <222> (6) ... (11)
       <223> n is a or g or c or t/u, unknown, or other
  60
```

	<400> 8 yhrhgnnhnn n	. 11
	<210> 9 <211> 11 <212> RNA <213> Artificial Sequence	
10	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 9 gggcgggucg g	11
20	<210> 10 <211> 10 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
30	<400> 10 gggcgggucg	10
	<210> 11 <211> 11 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
40	<400> 11 gggcaggucg g	11
	<210> 12 <211> 11 <212> RNA <213> Artificial Sequence	
50	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 12 gggccggucg g	11
60	<210> 13 <211> 11 <212> RNA	

	·	
	<213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 13 gggcgagucg g	11
LO	<210> 14 <211> 11 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
20	<400> 14 gggcgugucg g	11
	<210> 15 <211> 11 <212> RNA <213> Artificial Sequence	
30	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 15 gggcggaucg g	11
40	<210> 16 <211> 11 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 16 gggcgguucg g	11
50	<210> 17 <211> 11 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
60	<400> 17	11

```
<210> 18
     <211> 11
     <212> RNA
     <213> Artificial Sequence
     <220>
     <223> Description of Artificial Sequence: synthetic RNA
           sequence
     <400> 18
10
                                                                               11
     gggcggggcg g
     <210> 19
     <211> 11
     <212> RNA
     <213> Artificial Sequence
     <220>
     <223> Description of Artificial Sequence: synthetic RNA
20
            sequence
      <400> 19
                                                                                11
     gggcggguag g
      <210> 20
      <211> 11
      <212> RNA
      <213> Artificial Sequence
30
      <223> Description of Artificial Sequence: synthetic RNA
      <220>
            sequence
      <400> 20
                                                                                11
      gggcggguug g
      <210> 21
 40
      <211> 11
      <212> RNA
      <213> Artificial Sequence
      <220>
      <223> Description of Artificial Sequence: synthetic RNA
             sequence
      <400> 21
                                                                                 11
 50
       gggcgggucu g
       <210> 22
       <211> 11
       <212> RNA
       <213> Artificial Sequence
       <223> Description of Artificial Sequence: synthetic RNA
  60
             sequence
```

	<400> 22 gggcgggucg u	11
	<210> 23 <211> 11 <212> RNA <213> Artificial Sequence	
10	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 23 gggcggcucg g	11
20	<210> 24 <211> 11 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
30	<400> 24 gggcgggacg g	11
	<210> 25 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
40	<400> 25 ggagggcggg ucgg	14
	<210> 26 <211> 14 <212> RNA <213> Artificial Sequence	
50	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 26 ggagggggg ucgg	14
60	<210> 27 <211> 14 <212> RNA	

	3 , <u>-</u> ·	
	<213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 27 ggacggcggg ucgg	14
10	<210> 28 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
20	<400> 28 ggaggccggg ucgg	14
	<210> 29 <211> 14 <212> RNA <213> Artificial Sequence	
30	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 29 ggaaggcggg ucgg	14
40	<210> 30 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 30 ggagagcggg ucgg	14
50	<210> 31 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
60	<400> 31 ggaggacggg ucgg	1

	<210> 32 <211> 14 <212> RNA <213> Artificial Sequence	
10	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 32 ggagggaggg ucgg	14
20	<210> 33 <211> 14 <212> RNA <213> Artificial Sequence	
20	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 33 ggauggeggg uegg	14
30	<210> 34 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
40	<400> 34 ggagugeggg uegg	14
	<210> 35 <211> 14 <212> RNA <213> Artificial Sequence	
.	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
50	<400> 35 ggaggucggg ucgg	14
	<210> 36 <211> 14 <212> RNA <213> Artificial Sequence	

60

10/17

	10/1/	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 36 ggaggguggg ucgg	14
10	<210> 37 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
20	<400> 37 ggagggaggg ucgg	14
	<210> 38 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
30	<400> 38 ggaggcaggg ucgg	14
	<210> 39 <211> 14 <212> RNA <213> Artificial Sequence	
40	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 39 ggagccaggg ucgg	14
50	<210> 40 <211> 14 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
60	<400> 40 ggaccaaggg ucgg	14

	<210> 41	
	<211> 22	
	<212> DNA	
	<213> Artificial Sequence	
	.000	
	<220> <223> Description of Artificial Sequence: DNA PCR	
	primer	
10	P1 1	
	<400> 41	22
	ccggatccct cgggctcggg cg	22
	<210> 42	
	<211> 42 <211> 23	
	<212> DNA	
	<213> Artificial Sequence	
20	<220> <223> Description of Artificial Sequence: DNA PCR	
	cally primer	
	brimer	
	<400> 42	. 23
	ccaagcttcg aagaggaaag aag	
	<210> 43	
	<211> 813	
30	<212> RNA	
-	<213> Human Delta Virus	
	<400> 43 caccgeggug geggeegeue uagaacuagu ggaueeeueg ggeuegggeg gegagueeag	60
		120 180
		240
	The second of th	300
	conjugating adadtautaa ayyaautaa ayyaautaa	360
	agaagauaga ggacgaaaau cccuggcugg ggagggcccg aacggaccag auggagguag auaaggaugg agaagagg ccucucaggg gaggauucac cgacaaggag aggcaggauc acuccggacc ucggaagagg ccucucaggg gaggauucac cgacaaggag gcaagaaccu	420
40		480
		540
		600 660
		720
	The state of the s	780
	canceace ununcucee agaguigued acceaguga adadageggg and the	813
	cagguuugeg ucucgeguee uucuuuceue uuc	
50	<210> 44	
	<211> 57	
	<212> RNA	
	<213> Artificial Sequence	
	<220>	
	<220> <223> Description of Artificial Sequence: synthetic RNA	
	sequence	
60	<400> 44	57
nii	manuciaceu ceucycygus cyucosaaaa ee a a a a a a a a a a a a a a a a	

	<210> 45 <211> 57 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
10	<400> 45 ggguccaccu ceucgeggue ecageuggge augeggeuue geauggeuaa gggaeee	57
	<210> 46 <211> 57 <212> RNA <213> Artificial Sequence	
20	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 46 ggguccaccu ccucgcgguc cgaccugggc augccuucgg gcauggcuaa gggaccc	57
30	<210> 47 <211> 57 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 47 ggguccaccu ccucgcgguc cgcccugggc augcggcuuc gcauggcuaa gggaccc .	57
40	<210> 48 <211> 57 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
50	<400> 48 ggguccaccu ccucgcgguc cggccugggc augcggcuuc gcauggcuaa gggaccc	57
	<210> 49 <211> 57 <212> RNA <213> Artificial Sequence	
60	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	

	<400> 49 ggguccaccu ccucgcgguc cguccugggc augcggcuuc gcauggcuaa gggaccc	57
1.0	<210> 50 <211> 57 <212> RNA <213> Artificial Sequence	
10	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 50 ggguccaccu ccucgcgguc cgaacugggc augcggcuuc gcauggcuaa gggaccc	57
20	<210> 51 <211> 57 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
30	<400> 51 ggguccaccu ccucgcgguc cgagcugggc augcggcuuc gcauggcuaa gggaccc	57
	<210> 52 <211> 57 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
40	<400> 52 ggguccaccu ccucgcgguc cgaucugggc augcggcuuc gcauggcuaa gggaccc	57
	<210> 53 <211> 37 <212> RNA <213> Artificial Sequence	
50	<220> <223> Description of Artificial Sequence: synthetic RNA sequence	
	<400> 53 ggguccaccu ccucgcgguc cgaccugggc augcgcc	37
60	<210> 54) <211> 18	

	<212> DNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: synthetic sequence which is comprised of ribonucleotides or a combination of both ribonucleotides and deoxyribonucleotides	
10	<400> 54 ggcauggcua agggaccc	18
	<210> 55 <211> 20 <212> DNA <213> Artificial Sequence	
20	<220> <223> Description of Artificial Sequence: RNA/DNA sequence	
	<400> 55 ggcgcauggc uaagggaccc	20
30	<210> 56 <211> 21 <212> DNA <213> Artificial Sequence	
30	<220> <223> Description of Artificial Sequence: RT primer	
	<400> 56 ctttgatgtt ccccagccag g	21
40	<210> 57 <211> 10 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: Synthetic RNA sequence	
	<400> 57 cagugggugg	10
50	<210> 58 <211> 20 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: Synthetic RNA sequence	

15/17

	<400> 58 ggcgcauggc uaagggaccc	20
	<210> 59 <211> 57 <212> RNA <213> Artificial Sequence	
10	<220> <223> Description of Artificial Sequence: Synthetic RNA sequence	
	<400> 59 ggguccaccu ccucgcggug ggauaugggc augcggcuuc gcauggcuaa gggaccc	57
20	<210> 60 <211> 11 <212> RNA <213> Artificial Sequence	
	<220> <223> Description of Artificial Sequence: Synthetic RNA sequence	
	<400> 60 gggcggcugg g	11
30	<210> 61 <211> 57 <212> DNA <213> Artificial Sequence	
	<pre><220> <223> Description of Artificial Sequence: Synthetic nucleotide sequence comprised of ribonucleotides or a combination of ribonucleotides and deoxyribonucleotides</pre>	
40	<220> <221> misc_feature <222> (20)(26) <223> n is a or g or c or t/u	
	<400> 61 ggguecaccu ceuegeggun nnnnnuggge augeggeuue geauggeuaa gggaeee	57
50	<212> DNA <213> Artificial Sequence	
	<pre><220> <223> Description of Artificial Sequence: nucleotide sequence comprised of ribonucleotides or a combination of ribonucleotides and deoxyribonucleotides</pre>	

```
<220>
     <221> misc feature
     <222>
           (20)..(26)
     <223> n is a or g or c or t/u
     <400> 62
     ggguccaccu ccucgcggun nnnnnugggc augccuucgg gcauggcuaa gggaccc
                                                                              57
10
            63
     <210>
     <211>
            37
     <212>
            DNA
            Artificial Sequence
     <213>
     <220>
     <223> Description of Artificial Sequence: nucleotide
           sequence comprised of ribonucleotides or a
           combination of ribonucleotides and
           deoxyribonucleotides
20
     <220>
     <221>
            misc_feature
            (20)..(26)
      <222>
      <223> n is a or g or c or t/u
      <400> 63
                                                                              . 37
     ggguccaccu ccucgcggun nnnnnugggc augcgcc
      <210>
30
             64
      <211>
             20
      <212>
             DNA
             Artificial Sequence
      <213>
      <220>
            Description of Artificial Sequence: nucleotide
      <223>
            sequence comprised of ribonucleotides or a
            combination of ribonucleotides and
            deoxyribonucleotides
 40
      <400> 64
                                                                                20
      ggcgcauggc uaagggaccc
             65
      <210>
             37
      <211>
       <212>
             DNA
       <213> Artificial Sequence
 50
       <220>
             Description of Artificial Sequence: Synthetic nucleotide sequence
       <223>
              comprised of ribonucleotides or a combination of ribonucleotides
              and deoxyribonucleotides
       <220>
              misc feature
       <221>
             (20)..(26)
       <222>
       <223> n is a or c or g or t/u
```

```
<220>
     <221> misc feature
     <222>
           (35)..(35)
     <223> s is g or c
     <220>
     <221> misc feature
     <222> (36)..(36)
     \langle 223 \rangle b is g or c or t/u
10
     <220>
     <221> misc_feature
     <222> (37)..(37)
     <223> y is c or t/u
     <400> 65
                                                                             37
     ggguccaccu ccucgcggun nnnnnngggc augcsby
20
     <210>
            66
     <211>
            20
     <212>
            DNA
            Artificial Sequence
     <213>
    * <220>
            Description of Artificial Sequence: Synthetic nucleotide sequence
      <223>
             comprised of ribonucleotides or a combination of ribonucleotides
             and deoxyribonucleotides
30
      <220>
      <221> misc_feature
      <222>
            (1)..(1)
      <223> b is g or c or t/u
      <220>
      <221> misc_feature
            (2)..(2)
      <222>
      <223> k is g or t
      <220>
 40
             misc_feature
      <221>
             (3)..(3)
      <222>
             s is g or c
      <223>
      <400> 66
                                                                               20
      bksgcauggc uaagggaccc
```

50